

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
South Central Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS
Minor Permit Modification

Dan River Inc.
1100 West Main Street, Danville, Virginia
Permit No. SCRO30240

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Dan River Inc. has applied for a Title V Operating Permit for its Danville, VA facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date:_____

Air Permit Manager:_____ Date:_____
Air Regional Permit Manager

Regional Director:_____ Date:_____
Regional Director

FACILITY INFORMATION

Permittee

Dan River Inc.
P.O. Box 261
Danville, VA 24543

Facility

Dan River Inc., Schoolfield Plant
1100 West Main Street, Danville, VA

AFS ID No.: 51-590-00002

SOURCE DESCRIPTION

SIC Codes 2211, 2221, 2261, 2262, and 2269 and NAISC ID Codes 313210, 313311, and 313312 - manufacture textile goods

The Dan River Schoolfield plant, in operation since 1904, manufactures cotton/polyester textile goods for use in apparel and home furnishings. Raw materials (cotton and polyester) are received in bale form. This material is processed in a variety of operations which may include yarn manufacture, slashing, weaving, inspection and yarn dyeing. Finishing operations include screen printing and, for home fashion products, cut and sew operations. Support operations include boilers for the production of process steam.

The facility is a Title V major source of SO₂, NO_x, and VOCs. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility has four state-issued Minor NSR permits as follows:

<u>Permit Date</u>	<u>Equipment</u>
October 29, 1992	Screen Print Range #404
September 28, 1994	Screen Print Range #405
January 6, 2000	Thermosol Dye Range #124
September 11, 2001	Screen Print Range #403
September 11, 2001	Finishing Ranges #181 and 182

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

The facility also maintains an opacity CEM and submits quarterly excess emission reports (EER) for the #17 boiler in accordance with 9 VAC 5-40-1000, covering existing fossil fuel-fired boilers rated at 250 MMBtu/hr or greater.

Dan River Inc., Schoolfield Plant maintains eight 1-ton chlorine gas cylinders onsite. The facility has implemented a Risk Management Plan (RMP) under Section 112(r) of the Clean Air Act Amendments. The threshold quantity for chlorine for 112(r) applicability is 2,500 pounds.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Significant Emissions Units

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
15	B1	Combustion Engineering coal, #2 fuel oil, natural gas boiler; constructed 1946	190 MMBtu/hr input	Belco Pollution Control Corp. ESP	EP15	PM	N/A
16	B1	Combustion Engineering #2 fuel oil, natural gas boiler; constructed 1950	114 MMBtu/hr input	none	n/a	n/a	N/A
17 (NATS ID 50954000017)	B1	Combustion Engineering coal, #2 fuel oil, natural gas boiler; constructed 1952	252 MMBtu/hr input	Belco Pollution Control Corp. ESP	EP17	PM	N/A
Slashing							
S1	S1 (1-4)	(4) West Point Slashers installed 1988 – 1998	125 ypm each	none	N/A	--	N/A
S2	S2 (1-5)	(5) Cocker Slashers installed 1965	110 ypm each	none	N/A	--	N/A
S2	S2 (6-8)	(3) West Point Slashers installed 1980-1986	110 ypm each	none	N/A	--	N/A
Finishing Ranges							
201	F 201	Finishing Range installed 1971	125 ypm	none	N/A	--	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
207 and 209	F207 and F209	(2) Finishing Ranges installed 1952 – 1971	150 ypm each		N/A	--	N/A
208	F208	Finishing Range installed 1952	120 ypm		N/A	--	N/A
411	F411	Finishing Range installed 1973	200 ypm	none	N/A	--	N/A
181	F181	Sheeting Range installed 1994	105 ypm	none			09/11/01
182	F182	Sheeting Range installed 1987	105 ypm	none			09/11/01
Screen Print Ranges							
404	SP 404	(1) Screen Print Range	150 ypm	none	N/A	--	10/29/92
405	SP 405	(1) Screen Print Range	150 ypm	none	N/A	--	09/28/94
403	SP 403	(1) Screen Print Range installed 1987	150 ypm	none	N/A	--	09/11/01
401, 402	SP (401 - 402)	(2) Screen Print Ranges installed 1971, 1972	125 ypm each	none	N/A	--	N/A
Thermosol Dye Ranges							
124	TDR 124	(1) Thermosol Dye Range installed 2000	150 ypm	none	N/A	--	01/06/00
121, 123	TDR 121, 123	(2) Thermosol Dye Ranges installed 1964, 1968	100 ypm each	none	N/A	--	N/A
122	TDR 122	(1) Thermosol Dye Range installed 1979	110 ypm	none	N/A	--	N/A

Insignificant Emission Units

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Emission Unit No.	Emission Unit Description	Citation 9 VAC 5-80-	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
Process Equipment				
112, 115, 111	(3) Bleach Ranges	720 B.1,2	VOC, PM	112 at 300 ypm, 115 at 130 ypm, 111 at 250 ypm
101	(1) Heat Set Range	720 B.2	VOC	150 ypm
106	(1) Mercerizer	720 B.1	PM	125 ypm

107, 117, 218	(3) Dry Can Ranges	None	n/a	300 ypm
205	Washer	None	n/a	100 ypm
221, 222, 223	(3) Perkins Calendars	720 B.1	PM	40 ypm
233	Sander	None	n/a	30 ypm
236, 237	(2) Nappers	None	n/a	
316	(1) Sanforizer			150 ypm
333, 334	(2) Verduin Calenders	720 B.1	PM	40 ypm
ID-1	Indigo Dye House	720 B.5	ethylene glycol and glycol ethers	28 ypm
#1 Dyehouse	(111)Pressure dye kiers	720 B.2	VOC	
Generators				
COM1	Diesel generator	720 C.1.a	n/a	30 hp
ELEC1	Diesel generator	720 C.1.a	n/a	50 hp
FIRE1	Diesel fire pump	720 C.1.a	n/a	290 hp
Storage Tanks				
TUGF1	(1) gasoline UST	720 B.2	VOC	8,000 gal
TUGF2	(1) diesel fuel AST	720 B.2	VOC	8,000 gal
SC1, SC2	(2) #2 f.o. ASTs	720 B.2	VOC	18,000 gal each
SC4	(1) diesel fuel AST	720 B.2	VOC	2,000 gal
SC6	(1) #2 fuel oil AST	720 B.2	VOC	275 gal each
3-6, 7	(2) 17½%acetic acid ASTs	720 B.2	VOC	10,000 gal each
3-22, 23	(2) 17½%acetic acid ASTs	720 B.2	VOC	6,000 gal each
Propane	(4) Propane (backup fuel)	720 B.2	VOC	30,000 gal each
Chlorine	(8) 1-ton chlorine cylinders	720 B.5	chlorine	16,000 lbs (total)
Miscellaneous				
Coal Handling	Coal Unloading	720 B.1	PM	155,000 tpy
Ash Handling	Ash Handling	720 B.1	PM	62 tpy

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

EMISSIONS INVENTORY

Emissions from the 2002 emissions inventory are summarized in the following table.

Criteria and Hazardous Air Pollutant Emissions in Tons/Year						
	PM₁₀	SO₂	NO_x	CO	VOC	HAPs
Total	30.7	753.4	603.0	32.2	126.2	102.8

EMISSION UNIT APPLICABLE REQUIREMENTS

BOILERS

Limitations

No permits have been issued for the three boilers at this facility. The boilers are used to produce process steam. The primary boilers are #17 and 15, with #16 being used occasionally. The primary fuel for #15 and 17 boilers is pulverized coal; with No. 2 fuel oil and natural gas being used as backup. The #16 boiler burns No. 2 fuel oil or natural gas only. All three boilers exhaust to the atmosphere through a common stack.

Particulate emissions from the #15 and 17 boilers are controlled by electrostatic precipitators (ESPs). The design control efficiency for these ESPs is 97%. The ESPs are monitored for voltage and current in each field to assure optimum operating parameters are maintained.

PM emission limits for all three boilers have been calculated as specified in 9 VAC 5-40-900. It can be demonstrated that these hourly emission rates can be met using AP-42 emission factors and allowing only 70% efficiency for the ESPs, as follows:

Boiler	Max uncontrolled PM (lb/hr)	PM w/ 70% ESP efficiency (lb/hr)	Allowed (lb/hr)
#15	112.8	33.6	39.9
#16	1.7	N/A	23.9
#17	149.6	44.9	52.9

SO₂ emission limits for all three boilers have been calculated as specified in 9 VAC 5-40-930, which corresponds to a fuel sulfur content of approximately 2.5%. Historically, Dan River has burned coal with a sulfur content of 1% or less and No. 2 fuel oil with a sulfur content of 0.5% or less. It is felt that recordkeeping of the amount of fuel burned and the sulfur content of the fuel is sufficient to demonstrate compliance with the SO₂ emission limit and no further monitoring activities should be required for this pollutant.

Monitoring

Periodic monitoring requirements for opacity from the boilers are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective action does not result in the absence of visible emissions, the permittee will conduct VEE's in accordance with 40 CFR 60, Appendix A, Method 9 to assure opacity does not exceed the applicable standard. Weekly opacity monitoring of the boiler stack is adequate periodic monitoring for the boilers. Dan River also maintains an opacity CEM in the breaching of the #17 boiler in accordance with 9 VAC 5-40-1000 for fossil fuel fired boilers greater than 250 MMBtu/hr. The monitor is maintained and quarterly excess emission reports (EER) are submitted in accordance with 9 VAC 5-40-1000.

Testing

The permit requires Dan River to conduct stack tests and concurrent visible emission examination on Boilers 15 and 17 at a frequency not to exceed five years.

SLASHERS

No permits have been issued for the slashing operations. There are no visible emissions from

the slashers. The only emissions from the slashers is Methanol (VOC). Dan River will be required to keep VOC and HAP emissions from the slashers.

FINISHING RANGES

There are a total of seven fabric finishing ranges at this facility. Finishing Ranges #181 and 182 were issued a permit on September 11, 2001. VOC emissions for these ranges are calculated based on the amount of production and the amount of VOC resins used. Dan River will demonstrate compliance with the VOC emission limits by maintaining adequate production records.

Monitoring

Periodic monitoring requirements for opacity from the finishing range stacks are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective action does not result in the absence of visible emissions, the permittee will conduct VEE's in accordance with 40 CFR 60, Appendix A, Method 9 to assure opacity does not exceed the applicable standard.

SCREEN PRINT RANGES

Permits to install and operate screen print ranges #404 and 405 were issued in 1992 and 1994 respectively. The permit for Screen Print Range #403 was issued on September 11, 2001. VOC emissions for these ranges are calculated based on the amount of production and the amount of paste used. Dan River will demonstrate compliance with the VOC emission limits by maintaining adequate production records.

Monitoring

Periodic monitoring requirements for opacity from the screen print range stacks are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective action does not result in the absence of visible emissions, the permittee will conduct VEE's in accordance with 40 CFR 60, Appendix A, Method 9 to assure opacity does not exceed the applicable standard.

THERMOSOL DYE RANGES

A permit to install and operate thermosol dye range #124 was issued on January 6, 2000. Emission limits for VOCs were calculated based on the amount of production (yards of cloth) for this range. Dan River will demonstrate compliance with the annual VOC emission limit by keeping records of the amount of cloth processed through this range

Monitoring

Periodic monitoring requirements for opacity from the ranges are based on observation of the

presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required. If corrective action does not result in the absence of visible emissions, the permittee will conduct VEE's in accordance with 40 CFR 60, Appendix A, Method 9 to assure opacity does not exceed the applicable standard.

COMPLIANCE PLAN

No Compliance Plan currently required for this facility.

INAPPLICABLE REQUIREMENTS

The following requirements have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart Da	NSPS for >250 MMBtu/hr Steam Generating Units	Subpart Da is not applicable because the 252 MMBtu/hr boiler is not an electric utility boiler.
40 CFR 60 Subpart Db	NSPS for 100-250 MMBtu/hr Steam Generating Units firing coal	Subpart Db is not applicable because the 190 MMBtu/hr boiler was installed in 1946, before the NSPS 1984 applicability date.
40 CFR 60 Subpart Db	NSPS for >100 MMBtu/hr Steam Generating Units	Subpart Db is not applicable because the 114 MMBtu/hr boiler was installed in 1950, before the NSPS 1984 applicability date.
40 CFR 60 Subpart Kb	NSPS for >10,000 gallon VOC storage	Subpart Kb is not applicable because the two 18,000 gal. #2f.o. ASTs were installed in the 1960s, and the two 10,000 gal. acetic acid ASTs were installed prior to 1974, before the NSPS 1984 applicability date

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

NOx BUDGET TRADING PROGRAM REQUIREMENTS

The NOx Budget Trading requirements are being added to the Title V permit for the facility using the provisions for Minor Permit Modifications under 9 VAC 5-80-210.

This section represents the NOx Budget Trading permit, as required by 9 VAC 5-140-200 A, for each NOx Budget source required to have a federally enforceable permit. A monitoring system has been installed for the NOx Budget unit (Boiler #17) for monitoring NOx mass emissions in accordance with Subpart H of 40 CFR Part 75. The monitoring system has been certified under the procedures of 40 CFR Part 75 before the required date of May 1, 2003. Recording and reporting of NOx emissions are done in accordance with the requirements of 9 VAC 5 Chapter 140, 40 CFR Part 75, and 40 CFR Part 97.

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality.

PUBLIC PARTICIPATION

A public notice for the proposed permit is not required for a minor permit modification under 9 VAC 5-80-210 D.